United States Department of the Interior

FISH AND WILDLIFE SERVICE
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April 9, 2013

To: Interested Parties

From: Felipe Carrillo, Supervisory Fish Biologist, Red Bluff Fish and Wildlife Office

Subject: Biweekly report (March 26, 2013 - April 8, 2013)

Please find attached preliminary daily estimates of passage, 90% confidence intervals, and fork length ranges of juvenile salmonids sampled at Red Bluff Diversion Dam for the period March 26, 2013 through April 8, 2013. Race designation was assigned using length-at-date criteria.

This report also contains graphical displays of salmonid passage dating back to 2005 for comparison.

Please note that data contained in these reports is subject to revision as this data is preliminary and undergoing QA/QC procedures.

If you have any questions, please feel free to contact me at (530) 527-3043 ext 246

Table 1.— Preliminary estimates of passage by brood-year (BY) and run for unmarked juvenile Chinook salmon and steelhead trout captured by rotary-screw traps at Red Bluff Diversion Dam (RK391), Sacramento River, CA, for the dates listed below. Results include estimated passage, peak river discharge volume, water temperature, turbidity, and fork length (mm) range in parentheses. A dash (-) indicates that sampling was not conducted on that date.

				Estimated passage				
Date	Discharge volume (cfs) [1]	Water temperature (°C)	Water turbidity (NTU)	BY12 Winter	BY12 Spring	BY12 Fall	BY13 [2] Late-Fall	BY13 RBT
3/26/2013	5,810	12.8	2.3	44 (115 – 141)	152 (74 – 81)	585 (35 – 70)	(0 – 0)	44 (84 – 91)
3/27/2013	5,940	13.7	2.6	0 (–)	76 (77 – 81)	493 (38 – 72)	(0 – 0)	29 (93)
3/28/2013	5,960	13.6	2.6	119 (110 – 153)	95 (73 – 78)	643 (32 – 72)	(0 – 0)	0 (–)
3/29/2013	5,630	13.4	2.3	225 (106 – 164)	336 (73 – 86)	582 (48 – 72)	(0 – 0)	29 (96)
3/30/2013	7,180	13.4	4.3	242 (103 – 157)	744 (74 – 99)	1,724 (34 – 73)	(0 – 0)	24 (98)
3/31/2013	7,490	13.4	4.0	175 (109 – 144)	176 (75 – 90)	994 (36 – 73)	(0 – 0)	0 (–)
4/1/2013	10,300	13.1	–	–	–	–	–	–
4/2/2013	9,160	13.4	20.8	1,384 (102 – 157)	5,022 (75 – 100)	8,836 (35 – 74)	669 (31 – 34)	0 (–)
4/3/2013	8,260	13.9	5.5	706 (102 – 140)	4,768 (76 – 101)	11,000 (35 – 75)	293 (31 – 34)	107 (57 – 90)
4/4/2013	7,920	13.5	4.6	189 (111 – 136)	1,986 (76 – 90)	3,754 (35 – 75)	76 (33 – 34)	110 (44 – 125)
4/5/2013	10,400	13.0	5.4	231 (105 – 145)	2,983 (77 – 103)	5,546 (35 – 76)	34 (34)	163 (43 – 79)
4/6/2013	10,600	13.4	20.6	1,608 (104 – 184)	3,959 (77 – 97)	21,776 (35 – 76)	3,341 (31 – 34)	124 (55 – 55)
4/7/2013	10,300	13.7	10.6	531 (111 – 148)	4,473 (78 – 100)	17,060 (36 – 77)	1,394 (31 – 35)	183 (42 – 63)
4/8/2013	9,630	13.2	9.6	134 (106 – 136)	2,709 (78 – 104)	8,725 (36 – 77)	341 (31 – 35)	235 (22 – 54)
Biweekly Total [3]				**5,722**	**27,742**	**82,555**	**6,148**	**1,069**
Biweekly Lower 90% Confidence Interval				4,056	21,953	65,523	3,186	563
Biweekly Upper 90% Confidence Interval				7,389	33,531	99,586	9,116	1,575
Brood Year Total				**1,295,173**	**160,113**	**20,839,007**	**6,148**	**1,644**
Brood year Lower 90% Confidence Interval				911,549	104,383	14,835,959	3,186	340
Brood year Upper 90% Confidence Interval				1,678,796	215,844	26,842,055	9,116	2,947

[1] Peak daily discharge values do not account for diversions at RBDD and only represent peak flows registered at the Bend Bridge Gauging station (http://cdec2.water.ca.gov/cgi-progs/queryFx?bnd).

[2] Brood year 2013 began on 4/01/13 according to length-at-date criteria (Greene 1992); brood year 2012 total was estimated 139, 501

[3] Biweekly totals may be greater than the sum of the daily estimates presented in this table if sampling was not conducted on each day of the biweekly period. A dash (-) denotes those dates. To estimate daily passage for days that were not sampled, we impute missed sample days with the weekly mean value of days sampled within the week.

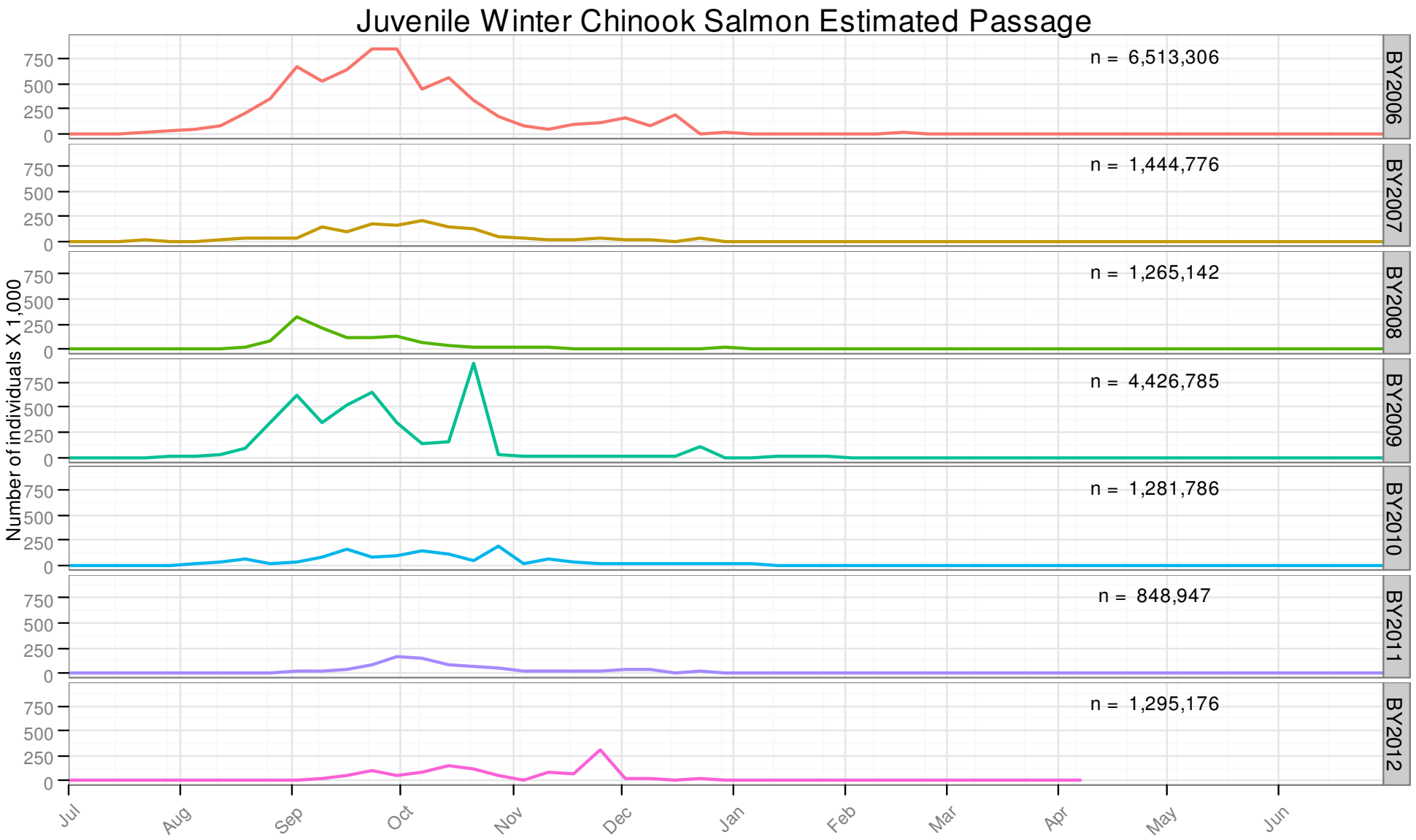

Figure 1. Weekly estimated passage of juvenile winter Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period July 1 2006 to present .

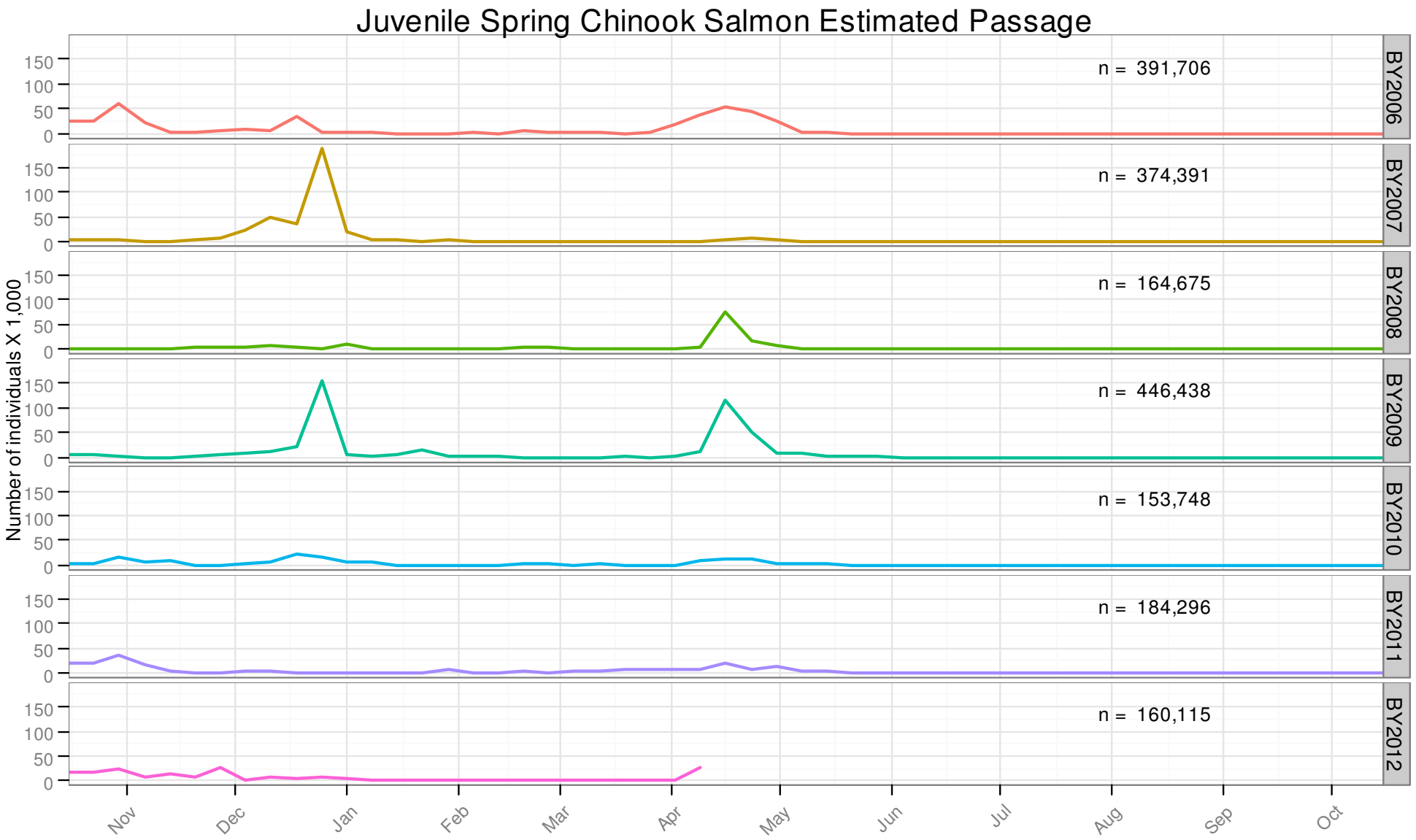

Figure 2. Weekly estimated passage of juvenile Spring Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period October 16 2006 to present .

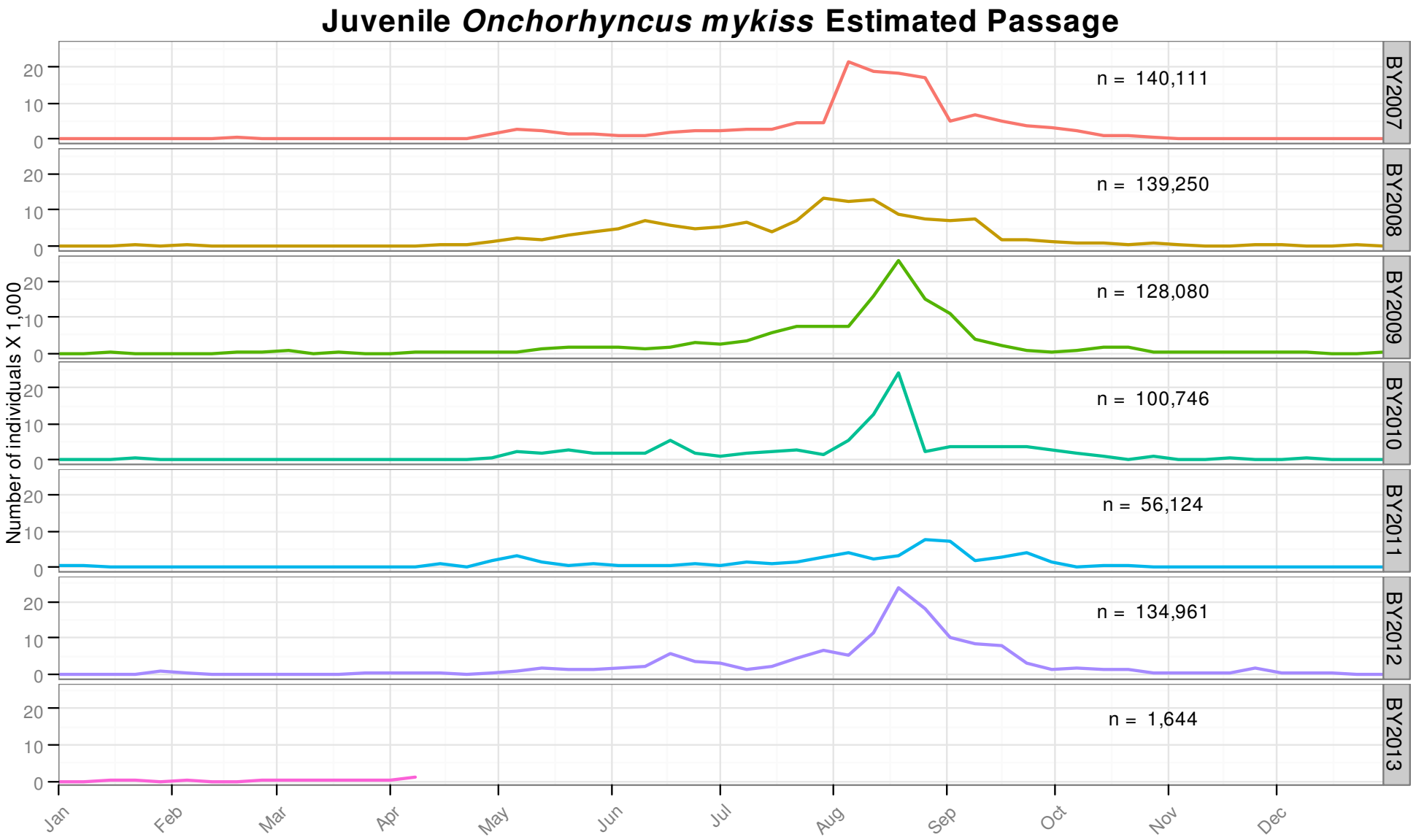

Figure 3. Weekly estimated passage of juvenile Rainbow/Steelhead trout at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period January 1 2007 to present .

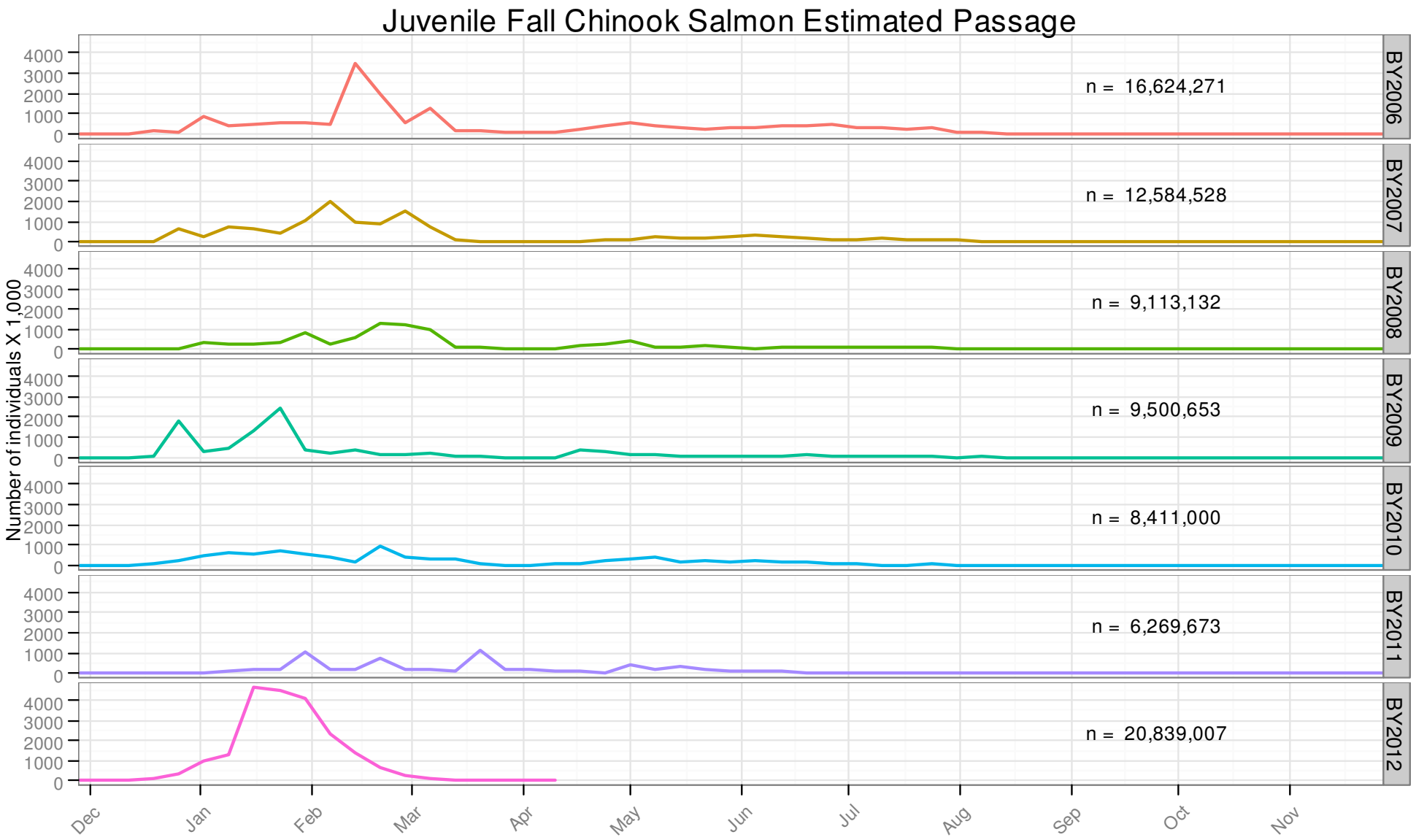

Figure 4. Weekly estimated passage of juvenile Fall Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period December 1 2006 to present .

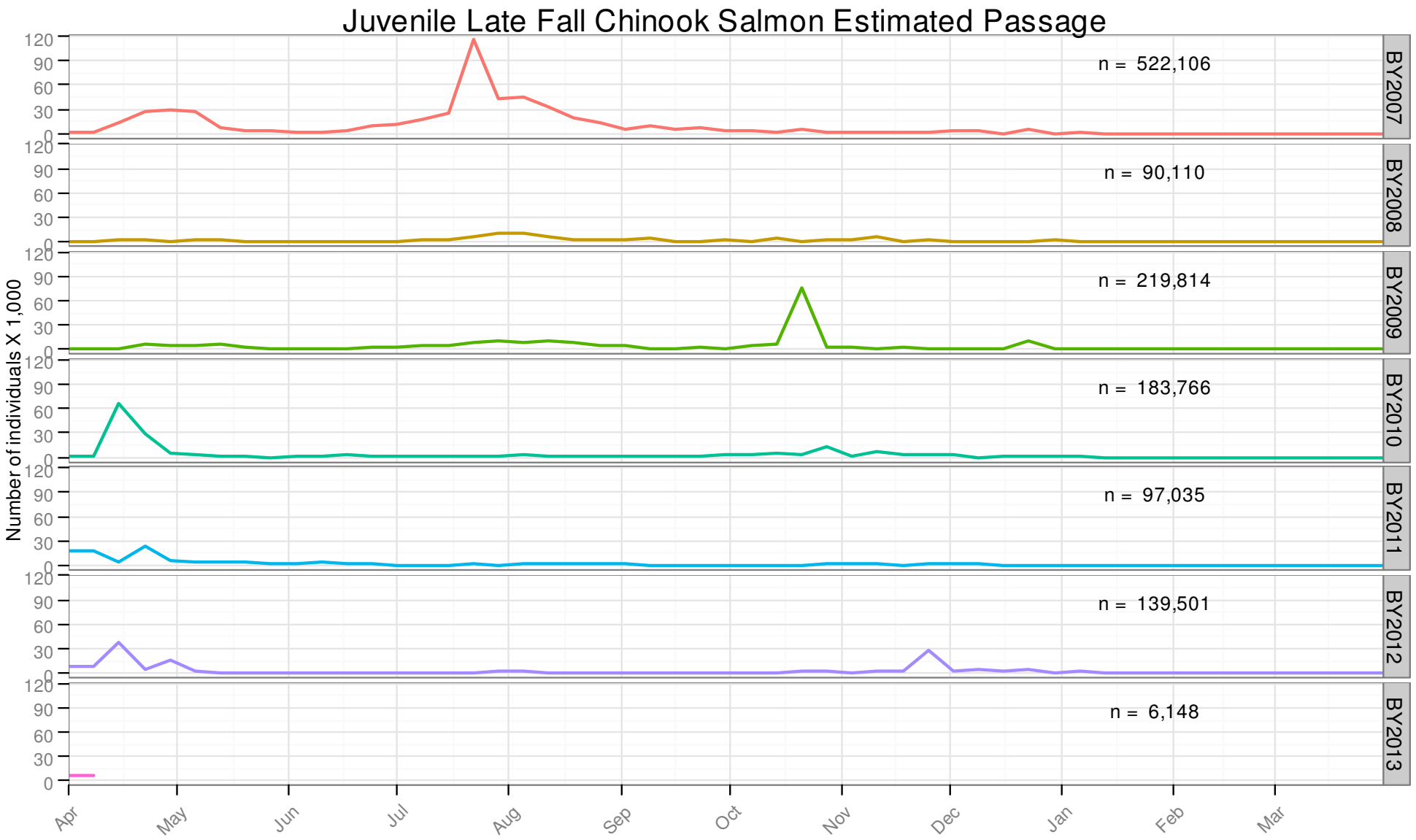

Figure 5. Weekly estimated passage of juvenile Late Fall Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period April 1 2007 to present .

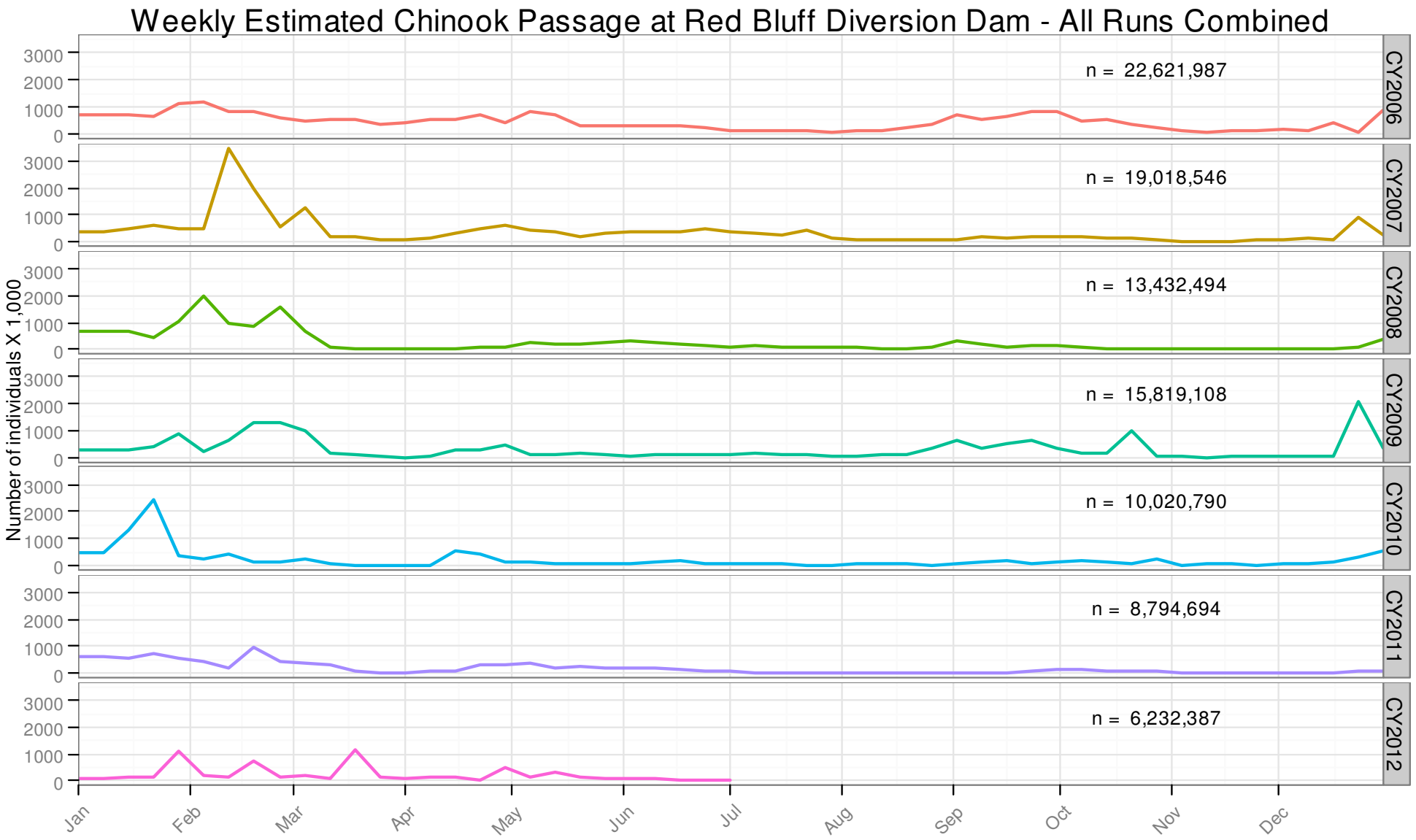

Figure 6. Weekly estimated passage of juvenile Chinook Salmon at Red Bluff Diversion Dam (RK391), by calendar year. Fish were sampled using rotary-screw traps for the period January 1 2006 to June 30 2012